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INDUSTRIAL FISHERY PRODUCTS MARKET REVIEW AND OUTLOOK

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SUMMARY

During the first half of 1977, supplies of fish meal and fish oil declined from a year earlier, while the supplies of fish solubles increased. Prices of fish meal, oil and solubles declined sharply in mid-1977, along with other prices in the feed-ingredient and fat-oil markets, reversing the upward trend that began in mid-1976.

Total production of fish meal in the United States during January-June 1977, 100,005 short tons, fell by 1 percent despite the 10-percent rise in menhaden production which was offset by drops for other meals. Menhaden solubles helped raise the total production of fish solubles by 3 percent to 44,818 short tons. However, the oil yield of menhaden landings fell substantially, so that the total U.S. production of fish oil fell 18 percent to 52 million pounds.

Imports of fish meal by the United States during the first half of 1977 fell by 6 percent from a year earlier to 53,777 short tons, principally because of the decline in receipts from Peru (down about 11,000 short tons) and Canada (down about 5,000 short tons). These declines were partially offset by the increased receipts (up almost 13,000 short tons) from Norway and other countries. The reduction in both imports and exports of fish meal and fish oil indicates tighter domestic and international supply situations. While the United States is a net importer of fish meal, it is a net exporter of fish oil. U.S. fish oil exports were at the lowest level since 1968 in the first half of 1977.

During January-May 1977, the production of fish meal by countries that are members of the Fishmeal Exporters Organization (FEO), excluding Angola, fell 21 percent. Nevertheless, exports rose, as high inventories at the beginning of the year were drawn down rapidly. Peru accounted for most of the decrease in fish meal production, most of the increase in exports, and most of the inventory reduction.

The decline in supplies of fish meal and fish oil in domestic and international trade suggests a basis for the price strength of early 1977. Indeed, prices of all three industrial fishery products--meal, solubles, and oil--had been advancing from mid-1976 to early 1977, but then declined in mid-1977, along with prices of other commodities in the feed-ingredient and fat-oil markets. Both of these markets were dominated at midyear by the news that old-crop supplies of soybeans were larger than had been initially estimated, and that new-crop supplies could be even more bountiful.

The outlook is for tight supplies of industrial fishery products during the remainder of 1977. However, prices will likely remain near mid-1977 levels in response to the heavy anticipated supplies of soybeans and derived products dominating the feed-ingredient and fat-oil markets.

FISH MEAL

During the first half of 1977, new supplies of fish meal (production plus imports) in the United States totaled about 154,000 short tons, 3 percent below a year earlier (table 1). Domestic production was about the same in the first half, and imports were 6 percent lower, a reflection of the decline in Peruvian anchovy meal production. Despite smaller supplies, fish meal prices declined sharply in mid-1977, as a result of the general decline in prices of feedstuffs.

Domestic Production

U.S. production of fish meal during the first half of 1977--100,005 short tons--was 1 percent less than a year earlier. A 10-percent increase in the output of menhaden meal to 69,943 short tons was more than offset by the decline in production of other fish meals.

Total landings of menhaden used for reduction were 642 million pounds during the first half of 1977, up 10 percent from a year earlier, the same percentage increase as for menhaden meal production.

Table 1.--United States fish meal supplies, January-June 1976 and 1977

Component	January-June		Change
	1976	1977	
	- - -Short tons- - -		Percent
Production 1/	101,266	100,005	- 1
Imports	56,999	53,777	- 6
Subtotal	158,265	153,782	- 3
Exports	5,422	3,653	-33
Total	152,843	150,129	- 2
Net trade 2/	51,577	50,124	- 3

1/ Figures for 1977 are preliminary; excludes shellfish meal.
2/ Imports minus exports.

Atlantic Coast landings rose 23 percent to 208 million pounds. However, the season opened 2 weeks earlier than in 1976, and the cumulative catch for a comparable period of fishing was reportedly less than in 1976. Furthermore, the Atlantic catch in June 1977 was about the same as in 1976. The Gulf Coast catch rose about 5 percent to 434 million pounds through June, the June catch being responsible for bringing the total above the 1976 level.

The production of tuna-mackerel meal during the first half of 1977 was 13,997 short tons, down 24 percent from a year earlier. The production of unclassified fish meal increased 9 percent to 10,336 short tons during the first half of 1977. Production of anchovy meal fell 42 percent to 5,729 short tons.

U.S. Imports and Exports

U.S. imports of fish meal during the first half of 1977 fell 6 percent from a year earlier to 53,777 short tons (table 1). Combining the reductions in both imports and exports, there was a net addition to supplies of 50,124 short tons, 3 percent less than a year earlier.

Norway was the leading supplier of imports of fish meal to the United States during January-June 1977, Peru fell to second place, and Canada remained in third place. Imports of 17,779 short tons from Norway exceeded those of January-June 1976 by 41 percent, and the 1966-75 average by 93 percent. Imports from Peru, 15,578 short tons, were down 42 percent, and entered the United States only in January and February. Imports from Canada fell 33 percent to 10,146 short tons. Among other countries, imports from Panama increased to 6,606 from 2,120 short tons, mostly because of improved biological stocks and catch of anchovy.

Developments in Major Exporting Countries

Production of fish meal by major exporting countries during January-May 1977 fell 21 percent from a year earlier to 823,000 metric tons (table 2). Despite this drop in production, exports increased by 23 percent to 570,000 metric tons, as high January 1 inventories were drawn down during the first five months of the year.

Peru accounted for most of the decrease in production, most of the increase in exports, and most of the inventory reduction. By contrast, a modest increase in production in Norway brought that country into the lead position among FEO countries during January-May 1977. Norway's improved production is based on higher catch of capelin, about 1.4 million metric tons in January-April 1977 compared to 1.2 million metric tons in the same months a year earlier. Capelin now accounts for most of the Norwegian catch of fish for reduction purposes; mackerel and herring have become less important. Norway reduced exports in January-May 1977 compared to a year earlier, and held almost half of the inventories of the FEO countries at the end of May 1977. As for Norway, the catch of capelin increased in Iceland, reaching a record 549,000 metric tons in January-June 1977, 62 percent ahead of a year earlier. This prompted significant improvements in production, exports and inventories of fish meal.

Table 2.--Fish meal supply and utilization for major exporting countries, January-May 1976 and 1977

Component	January-May 1976	January-May 1977	Change
	1,000 metric tons		Percent
Beginning inventory	185	329	+ 78
Production	1,038	823	- 21
Total supply	1,223	1,152	- 6
Exports	463	570	+ 23
Domestic consumption	138	132	- 4
Ending inventory	622	450	- 28

Note: For countries that are members of the Fishmeal Exporters Organization (FEO), except Angola. Imports are believed to be nil. Computations based on figures prior to rounding.

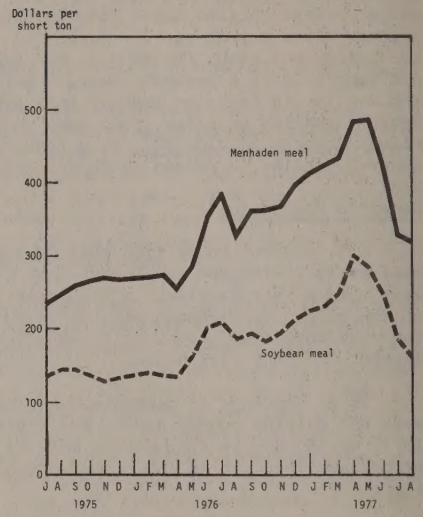
Prices

Prices of fish meal and other feedstuffs fell during mid-1977, ending the rising trend that began in mid-1976 (fig. 1). For example, the wholesale price of 60-percent protein menhaden meal had risen to an average of $486 per short ton in May 1977 from $253 in April 1976, but then fell to $327 in July 1977, 15 percent below the price a year earlier. Judging by weekly prices, the turning point occurred in late April or early May 1977, coinciding with that for imported Peruvian fish meal, and following the turning point for soybean meal in early April. Prices of fish meal in Hamburg, Germany, followed a roughly similar pattern, peaking later in May (fig. 2). However, the average Hamburg price for July 1977 was still 10 percent higher than a year earlier, while U.S. prices for fish meal were 6 to 15 percent lower.

OUTLOOK

Total new supplies of fish meal in the United States during 1977 will decline from a year earlier if imports continue to decline as expected. The decline in imports will result mostly from sharply reduced production in Peru, a leading supplier in world trade. Despite the decline in fish meal supplies, the expected rise in supplies of other major feed ingredients, notably soybeans, suggests that prices of fish meal should remain at the mid-1977 level for the next few months.

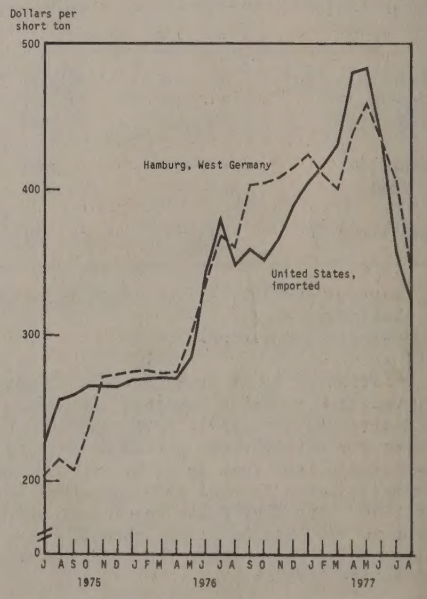
Figure 1. -- PRICES OF MENHADEN MEAL AND SOYBEAN MEAL, 1975-77



Menhaden meal: 60 percent protein, bulk, f.o.b., East Coast ports.

Soybean meal: 50 percent protein, bulk, Decatur, Ill.

Figure 2. -- PRICES OF FISH MEAL IN THE UNITED STATES AND IN EUROPE, 1975-77



Hamburg: 65 percent protein, any origin, c & f.

United States: Imported Peruvian meal, 65 percent protein, bulk f.o.b., East Coast ports.

U.S. annual production of fish meal during 1977 will likely remain close to the 1976 level. On the basis of information on menhaden catch to mid-season, NMFS biologists indicate that it seems likely that the 1977 catch in the Gulf could be equal to or higher than last year, while an increase in the Atlantic catch seems unlikely. Production of tuna-mackerel and other meals is expected to be down from 1976.

Compared with 1976, imports of fish meal by the United States and other countries will fall sharply in the second half of 1977 if Peruvian production does not recover. In 1976, Peru accounted for over half of the United States imports, and for over one-third of the shipments of major exporting countries. Through May 1977, Peru's production of fish meal was 49 percent below a year earlier, the result of the reportedly low condition of anchovy stocks on Peru's major fishing grounds. The reduced condition of the anchovy resource led to the early closure of the fishing season in May on the major grounds (excluding the extreme southern grounds, near Chile, which remained open). Furthermore, there are indications that the reopening of the major Peruvian grounds to anchovy fishing following the main spawning season (mostly in August and September) may be delayed and otherwise restricted. For example, some indication of a restricted reopening is suggested by reports that discuss alternate species that could be harvested in place of anchovy. Landings of these species were relatively small compared with anchovy in early 1977 and previous years. The southern grounds were opened to fishing for these other species in early August 1977. Later in August the opening was extended to certain areas of other grounds, but only for a limited number of vessels, and with the stipulation that anchovy not exceed 10 percent of the total catch.

In addition to the expected decline in the production of Peruvian anchovy meal, there are resource-related constraints on the production of fish meal in other major trading countries. The European Economic Community (EEC) imposed a ban on fishing for herring in the North Sea until September 30, 1977, and the ban may be extended until January 1, 1978. There is also a partial ban on fishing for Norway pout, another species used for reduction. In the Barents Sea, it is expected that the capelin catch will approach 3 million metric tons in 1977, but quotas are possible in 1978. It is estimated that Norway's catch of capelin will reach about 2 million metric tons in 1977, roughly the same as in 1976. The Soviet catch from the same resource in the Barents Sea, about 0.7 million metric tons in 1976, has been increasing. The combination of rising Soviet catch and the possible implementation of catch quotas will limit growth in Norway's catch. In the Baltic Sea, the international governing commission (meeting in early September 1977) probably will prohibit fishing for reduction purposes, and this would affect the Danish fish meal industry, an important source of supply in world trade of fish meal. In the herring fishing grounds west of Scotland, reduced allocations have been in effect in 1977. For the mackerel fisheries off the southwest coast of England, there has been an increasing possibility of reduced allocation. For resources near the coast of Namibia (South West Africa), a severely reduced pilchard quota was recommended as a result of a scarcity of fish during research surveys in early 1977. The catch of industrial fish near the coast of South Africa has improved, but not enough to prevent the reduction in exports from South Africa because of the drop in catch off Namibia.

In addition to resource-related constraints on the production of fish meal in other trading countries during the remainder of 1977 and early 1978, Japan substantially increased imports of fish meal during 1977. In January-June 1977, Japanese imports of fish meal were 88,500 metric tons, up from 24,400 metric tons a year earlier; exports decreased to 14,300 from 23,600 metric tons. Japan is a major producer and consumer of fish meal, and imports were increased and exports were reduced, apparently because of concern about the impact of anticipated reductions in catch off the coasts of other countries (notably the United States and the Soviet Union) as those countries began to give preference to their own fishermen under the new extended jurisdiction laws. Despite this concern, the Japanese production of fish meal was down only 8.6 percent from the previous year in January-May 1977 to 229,763 metric tons. Most likely, Japan will be supplying less fish meal in international trade, and buying more, and will add to the demands for limited world supplies during the second half of 1977 and early 1978, all of which may limit United States imports.

Even though U.S. supplies of fish meal during the second half of 1977 and early 1978 may be limited by reductions in imports, there are indications that demand will continue to grow. Broiler production is expected to increase three percent in the third quarter of 1977 from the previous year according to USDA (United States Department of Agriculture), and demand for fish meal will increase accordingly. USDA forecasts a four percent rise in broiler production for the fourth quarter, and a five percent rise for the first quarter of 1978.

The combination of strong demand and weakened supply point to price strength for fish meal, but the expected rise in supplies of major feed ingredients, notably soybeans, suggests that prices of fish meal should remain at about the mid-1977 level for the next few months.

FISH SOLUBLES

U.S. production and imports of fish solubles rose during January-June 1977 compared with the same months last year. Prices declined in mid-1977.

U.S. production and total supplies of fish solubles were about 45,000 short tons in January-June 1977, up 3 percent from levels of the previous year (table 3). For menhaden, the production of solubles rose 16 percent to 30,000 short tons, even though both landings and production of meal rose only 10 percent. The production of solubles from unclassified species was about 15,000 short tons, down 17 percent.

Table 3.--New supplies of fish solubles, January-June 1976 and 1977

Component	January-June 1976	January-June 1977	Change
	Short tons		Percent
Production			
Menhaden 1/	25,820	29,975	+ 16
Unclassified	17,806	14,843	- 17
Total	43,626	44,818	+ 3
Imports	102	225	+ 121
Total new supplies	43,728	45,043	+ 3

1/ May include small quantities made from other species.
Note: Figures for 1977 are subject to revision.

The price of fish solubles had trended upward from mid-1976 to early 1977, then declined in mid-1977, generally following the prices of other feed ingredients, such as fish meal and soybean meal (fig. 1). The price of menhaden solubles (in tank cars, f.o.b., east coast plants) in July 1977 was about $149 per short ton, about 8 percent above the comparable price a year ago, while the price of menhaden meal fell 15 percent. This suggests continued strengthening in the price of solubles relative to meal that began about 1972.

OUTLOOK

It is likely that both U.S. annual production and demand for fish solubles in 1977 will remain close to the 1976 level. Turkey feeds represent a major use of fish solubles, and turkey production (ready-to-cook weight) is expected to remain close to what it was in 1976. USDA forecasts a 3 percent decline in production of turkeys in the third quarter of 1977 from last year, and fourth quarter production at about the same level as last year. The relative stability of supply and demand for fish solubles indicates that the price of fish solubles could remain at about the reduced level of mid-1977 for the next few months.

FISH OIL

During January-June 1977, U.S. production, consumption, and trade of fish oil declined from the same period a year earlier. Prices declined in mid-1977.

The production of fish oil in the United States was 52 million pounds during January-June 1977, 18 percent below a year earlier (table 4). The decline was associated primarily with menhaden oil, which accounted for 90 percent of the total production. Although menhaden landings increased, oil yield fell 25 percent, accounting for the drop in the production of menhaden oil. The decrease in oil yield was primarily attributed to the smaller average size of fish in the catch. In contrast to menhaden oil, the production of tuna-mackerel oil advanced 40 percent to 4.0 million pounds. 1/ The combined production of anchovy and unclassified fish oil declined 34 percent to 1.8 million pounds.

Table 4.--U.S. supply and utilization of fish oil, January-June 1976 and 1977

Component	January-June 1976	January-June 1977	Change
	Thousand pounds		Percent
Production	63,201	52,024	- 18
Imports	10,266	5,728	- 44
Subtotal	73,467	57,752	- 21
Exports	31,000	21,995	- 29
Consumption	19,810	17,203	- 13
Total disappearance	50,810	39,198	- 23
Apparent change in stocks	+22,657	+18,554	- - -

Note: Includes preliminary figures for 1977.

1/ Even though total cannery receipts declined 16 percent, mackerel receipts alone advanced (from 10,852 to 27,072 short tons), and there was an unusually large production of mackerel oil in May 1977. Were it not for these increases, one might have expected oil production to have declined more than total cannery receipts, particularly because a larger fraction of receipts can now be processed into canned pet food, leaving a smaller fraction available for reduction into fish meal and fish oil.

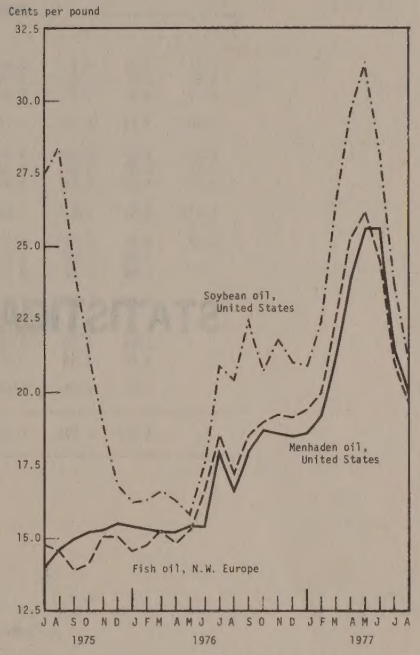
Domestic utilization of fish oil in various inedible products fell 13 percent from a year earlier to 17 million pounds in January-June 1977 (table 4). Imports fell 44 percent to 5.7 million pounds. Additions to stocks were about 19 million pounds in January-June 1977, and the decrease from 23 million pounds a year earlier tends to confirm other information about supplies of fish oil being lower.

U.S. exports of fish oil were 22 million pounds in January-June 1977, 29 percent below a year earlier (table 4). Lower exports to Colombia and the Netherlands accounted for most of the decline. These two countries, along with West Germany and the United Kingdom, are the usual major purchasers of fish oil from the United States.

In contrast to U.S. exports, world trade in fish oil appeared to be about the same in January-June 1977 as it was a year earlier on the basis of information for six major exporting countries (Norway, the United States, Japan, Denmark, Peru, and Iceland) which accounted for about 90 percent of the 1974-76 average annual world trade in fish oil. However, there has been a drop in world trade since 1975, because exports from Peru were nil in 1976 and 1977, and have been only partially offset by increased exports from other countries, notably Norway.

The reduced flow of fish oil since 1975 in international and domestic trade channels could help explain the upward pressure on prices of fish oil through May 1977. Subsequently, prices in Western Europe and the United States have slipped about 15 to 20 percent (fig. 3). Even so, the domestic price of menhaden oil (crude, f.o.b., east coast plants) in July 1977 averaged 21.4 cents per pound, 19 percent above the same month last year, and the price of fish oil in Western Europe (crude, Hamburg) averaged 21.1 cents per pound, 14 percent higher. Compared with soybean oil, menhaden oil has shown greater price strength since April 1977. It was selling at about 90 percent of the price of soybean oil in June and July 1977, as it did on the average during 1976. This is a high relative price for menhaden oil, which averaged about 70 percent of the price of soybean oil in the years 1950-76.

Figure 3. -- U. S. PRICES OF FISH OIL AND SOYBEAN OIL, AND EUROPEAN PRICE OF FISH OIL, 1975-77



Soybean oil, United States: crude, tank cars, f.o.b. at Decatur, Ill.

Menhaden oil, United States: crude, tank cars, f.o.b. East Coast plants, quoted at New York City.

Fish oil, N.W. Europe: crude, any origin.

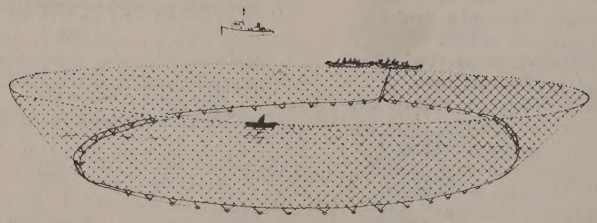
OUTLOOK

We expect production of fish oil in the United States to continue to lag behind comparable 1976 levels. This alone could cause a resumption of the upward trend in prices, but prices may remain stable based upon developments in overall supplies of oilseeds, oils and fats. The USDA forecast (of August 1, 1977) of a 25 percent increase in oilseed production (soybeans, cottonseed, peanuts, and flaxseed combined) was reflected in the price drops of mid-1977.

U.S. production of fish oil is largely dependent on the catch of menhaden and its oil yield. As mentioned in the outlook for fish meal, NMFS biologists indicate that it seems likely that the 1977 catch in the Gulf could be equal to or higher than last year, while an increase in the Atlantic catch seems unlikely. Furthermore, no substantial change in oil yield is expected from what was achieved in the first half, 7.2 percent, compared to 9.9 percent for the same period last year. This relatively low yield would cause oil production to be low during the remainder of the year.

World trade in fish oil for 1977 could be about the same as in 1976. Peru had been a major supplier, but exports were nil in 1976 and probably will be small in 1977. Among remaining major exporting countries, only Norway will significantly increase production between 1976 and 1977. Norway accounted for over one-third of the estimated world trade in fish oil in 1976, and production in early 1977 increased from the same period a year earlier on the basis of improved catch of capelin.

STATISTICAL APPENDIX



Menhaden purse seine

The Secretary of Commerce has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this department. Use of funds for printing this publication approved by the Office of Management and Budget, July 26, 1973; this approval expires June 30, 1978.

Table A1.--Production and imports of fish meal in the United States by month, 1966-75 average, and 1975-77

Time period	Production				Imports				Total			
	1966-75 average	1975	1976	1977	1966-75 average	1975	1976	1977	1966-75 average	1975	1976	1977
	Thousand short tons											
January	4.4	6.7	6.5	5.2	25.7	1.7	4.1	10.3	30.1	8.4	10.6	15.5
February	4.0	4.7	4.0	2.7	23.5	0.7	2.5	8.9	27.5	5.4	6.5	11.6
March	5.2	5.6	6.1	7.9	28.9	1.5	8.0	3.4	24.1	7.1	14.1	11.4
1st quarter	13.6	17.0	16.6	15.8	78.1	3.9	14.6	22.6	91.7	20.9	31.2	38.4
April	12.0	11.2	17.6	12.7	34.6	17.1	6.0	9.8	46.6	28.3	23.6	22.4
May	27.4	35.6	25.0	24.3	30.1	2.4	21.8	9.7	57.7	38.0	46.8	34.0
June	41.4	42.6	42.1	47.2	34.6	3.6	14.6	11.7	76.0	28.3	56.7	58.9
2d quarter	80.8	89.4	84.7	84.2	99.3	23.1	42.4	31.2	180.1	112.4	127.0	115.3
July	47.4	53.5	55.7	45.4	34.0	24.8	13.1	6.9	81.4	78.4	68.9	52.2
August	41.6	38.3	54.1		32.0	14.3	12.6		73.6	52.6	66.7	
September	28.9	32.5	41.8		29.0	13.8	26.3		57.9	46.3	68.1	
3d quarter	117.9	124.3	151.7		95.0	53.0	51.9		212.9	177.3	203.6	
October	18.6	23.2	18.6		27.1	13.4	15.8		45.7	36.6	34.4	
November	14.2	13.5	14.9		23.1	22.7	10.8		37.3	36.1	25.6	
December	9.6	11.8	12.6		26.8	2.5	4.8		36.4	14.2	17.4	
4th quarter	42.4	48.5	46.1		77.0	38.5	31.4		119.4	87.0	77.5	
Total	257.7	279.2	299.0		349.5	118.4	140.4		604.1	397.5	439.2	

Note: Production excludes meal from shellfish. 1977 figures are preliminary.
Figures may not add to total because of rounding.

Source: NMFS, Data Management and Statistics Division; Bureau of the Census.

Table A 2.--U.S. fish meal production by species, by month, 1966-75 average, and 1975-77

Time period	Anchovy				Menhaden				Tuna and mackerel				Unclassified			
	1966-75 average	1975	1976	1977	1966-75 average	1975	1976	1977	1966-75 average	1975	1976	1977	1966-75 average	1975	1976	1977
	Thousand short tons															
January	1.3	3.1	3.1	0.7	0.1	-	0.3	1.1	1.9	2.6	2.5	2.4	1.1	1.0	0.6	1.0
February	0.8	1.5	1.0	.1	-	-	-	-	2.0	2.4	2.1	1.6	1.2	0.9	0.9	1.1
March	0.5	0.7	1.2	3.3	-	-	-	-	3.0	3.6	3.8	3.2	1.7	1.3	1.2	1.5
1st quarter	2.6	5.2	5.3	4.0	0.1	-	0.3	1.1	6.9	8.6	8.4	7.2	4.0	3.1	2.6	3.5
April	1.2	3.4	3.9	1.7	4.6	3.2	8.5	7.4	3.4	3.3	3.6	2.0	2.8	1.4	1.6	1.5
May	1.0	3.3	0.6	1/	20.3	27.5	18.9	20.0	3.0	2.2	3.3	2.3	3.1	2.6	2.2	2.0
June	-	-	-	-	34.1	37.0	35.7	41.3	3.2	3.5	3.2	2.5	4.1	2.1	3.2	3.3
2d quarter	2.2	6.7	4.5	1.7	59.0	67.7	63.2	68.8	9.6	9.0	10.1	6.8	10.0	6.0	6.9	6.8
July	0.1	-	-	-	39.1	47.3	49.2	39.5	3.1	3.5	3.4	3.1	5.1	2.8	3.2	2.7
August	0.1	-	-		33.2	29.9	46.5		3.2	3.7	3.7		5.1	4.7	3.9	
September	0.8	1.7	0.7		20.9	25.5	34.0		2.8	3.1	3.7		4.4	2.1	3.4	
3d quarter	1.0	1.7	0.7		93.2	102.7	129.7		9.1	10.3	10.7		14.6	9.7	10.5	
October	2.2	5.3	1.9		10.7	12.7	10.9		2.0	3.3	3.5		2.7	1.9	2.3	
November	2.3	3.6	4.7		7.8	5.5	5.5		2.5	3.0	3.5		1.6	1.3	1.2	
December	2.0	5.1	5.0		3.7	2.8	3.0		2.6	3.1	3.9		1.3	0.8	0.7	
4th quarter	6.5	14.0	11.6		22.2	21.1	19.4		8.1	9.4	10.8		5.6	4.0	4.2	
Total	12.3	27.7	22.2		174.4	191.4	212.6		33.5	37.2	40.1		34.5	22.8	24.2	

1/ Included with unclassified.
Note: Production excludes meal from shellfish.
Figures may not add to total because of rounding.
1977 figures are preliminary.

Source: NMFS, Data Management and Statistics Division.

Table A 3.--U.S. imports of fish meal by country of origin, by month, 1966-75 average, and 1976-77

Time period	Canada			Chile			Norway			Peru			Other countries		
	1966-75 average	1976	1977	1966-75 average	1976	1977	1966-75 average	1976	1977	1966-75 average	1976	1977	1966-75 average	1976	1977
	Thousand short tons														
January	3.1	1.4	1.3	0.7	-	-	2.3	2.4	-	18.8	-	7.9	0.8	0.3	1.1
February	2.7	2.0	1.1	0.8	-	-	2.3	0.6	-	17.2	-	7.7	0.5	-	1/
March	3.7	2.6	2.0	3.3	-	-	1.3	3.5	-	20.3	-	-	0.3	1.9	1.4
1st quarter	9.5	6.0	4.5	4.8	-	-	5.9	6.5	-	56.3	-	15.6	1.6	2.2	2.6
April	3.4	3.1	2.1	3.5	5.0	-	1.3	2.9	5.2	26.1	-	-	0.3	1/	2.5
May	3.2	3.4	1.9	3.1	-	2.2	1.0	0.6	4.9	22.1	17.6	-	0.7	0.2	.7
June	3.3	2.8	1.7	3.2	-	-	1.0	2.7	7.7	26.8	9.1	-	0.3	1/	2.3
2d quarter	9.9	9.2	5.7	9.8	5.0	2.2	3.3	6.1	17.8	75.0	26.7	-	1.3	0.3	5.5
July	4.5	3.9	2.1	1.9	-	-	1.5	-	3.6	25.3	6.6	-	0.8	2.6	1.1
August	5.8	4.5		4.5	-		1.8	-		19.4	6.9		0.5	1.1	
September	5.8	3.6		1.9	-		4.2	-		16.9	20.4		0.2	2.3	
3d quarter	16.1	12.1		8.3	-		7.5	-		61.6	33.9		1.5	6.0	
October	5.5	3.3		3.0	-		2.3	-		16.1	9.9		0.2	2.6	
November	3.2	2.0		2.9	2.3		3.1	-		13.7	8.8		0.2	-	
December	2.9	1.5		2.3	0.4		1.5	3.3		19.8	-		0.3	-	
4th quarter	11.6	6.7		8.2	2.8		6.9	3.3		49.6	18.7		0.7	2.6	
Total	47.3	34.0		31.3	7.7		23.5	15.9		242.5	79.4		4.9	11.1	

1/ Less than 50 short tons.

Note: Figures may not add to total because of rounding.
Source: Bureau of the Census.

Table A4.--U.S. exports of fish meal, by month, 1972-77

Time Period	1972	1973	1974	1975	1976	1977
	Thousand short tons					
January	-	3.0	8.9	2.0	1.5	1/
February	0.3	1.6	8.8	3.4	0.2	0.1
March	0.3	2.6	1.1	0.9	0.3	0.4
1st quarter	0.6	7.2	18.8	6.3	2.0	0.5
April	0.1	3.0	3.9	0.6	2.7	0.3
May	-	0.5	1.9	0.3	0.6	2.6
June	0.1	3.2	3.3	1.2	0.1	0.3
2d quarter	0.2	6.7	9.1	2.1	3.4	3.2
July	0.3	2.4	7.3	0.1	1.7	2.7
August	0.4	1.1	8.9	0.1	2.4	
September	1.9	0.8	8.0	0.4	6.4	
3d quarter	2.6	4.3	24.2	0.5	10.5	
October	1.7	3.5	1.7	0.8	7.9	
November	1.8	3.7	0.6	1.2	3.0	
December	3.6	11.3	1.0	0.9	6.3	
4th quarter	7.1	18.5	3.3	2.9	17.2	
Total	10.5	36.7	55.5	11.9	33.1	

1/ Less than 50 short tons.
Source: Bureau of the Census.

Table A5. --Broiler chicks placed in 21 States, and average broiler price at the farm by month, 1966-75 average, and 1975-77

Time period	Chicks placed				Percentage change in chicks placed			Broiler price at the farm		
	1966-75 average	1975	1976	1977	in 1975 from 1966-75 average	in 1976 from 1975	in 1977 from 1976	1975	1976	1977
	Million				Percent			Cents/lb		
January	243.3	273.5	299.8	316.1	+ 12.4	+ 9.6	+ 5.4	23.8	24.2	21.5
February	225.2	228.5	246.4	259.1	+ 1.5	+ 7.8	+ 5.2	24.3	25.2	24.0
March	257.3	237.4	264.1	276.7	- 7.7	+ 11.2	+ 4.8	23.5	24.4	24.3
1st quarter	725.8	739.4	810.3	851.8	+ 1.9	+ 10.0	+ 5.1	23.9	24.6	23.3
April	251.3	241.3	272.1	285.0	- 4.0	+ 12.8	+ 4.7	23.2	23.5	24.3
May	275.5	301.6	339.6	359.8	+ 9.5	+ 12.6	+ 5.9	24.6	24.6	24.3
June	248.6	243.8	273.4	285.8	- 1.9	+ 12.1	+ 4.5	27.6	24.3	24.7
2d quarter	775.4	786.8	885.1	930.7	+ 1.5	+ 12.5	+ 5.2	25.1	24.2	24.4
July	248.2	291.2	327.4	338.7	+ 17.3	+ 12.4	+ 3.5	29.7	25.0	26.2
August	237.6	230.5	253.8	254.7	- 3.0	+ 10.1	+ 0.4	29.1	23.8	23.9
September	210.8	224.1	247.2		+ 6.3	+ 10.3		29.6	22.8	
3d quarter	696.6	745.8	828.4		+ 7.1	+ 11.1		29.5	24.3	
October	222.2	264.7	284.5		+ 19.1	+ 7.5		28.5	20.6	
November	227.1	227.5	237.4		+ 0.2	+ 4.4		27.0	19.4	
December	230.0	234.5	244.1		+ 1.6	+ 4.1		24.0	19.3	
4th quarter	679.3	726.7	766.0		+ 6.8	+ 5.4		26.5	19.8	
Total	2,877.1	2,998.7	3,289.8		+ 4.2	+ 9.7		26.2	23.6	

Note: Figures may not add to total because of rounding. 1977 figures are preliminary.

Sources: Delmarva Broiler Chick Report, U.S. Department of Agriculture, Statistical Reporting Service, and Poultry and Egg Situation, U.S. Department of Agriculture, Economic Research Service.

Table A6.--Supply and utilization of fish meal in major exporting countries, January-May 1976 and 1977

Country and period	Beginning inventory	Production	Subtotal	Exports	Domestic consumption	Ending inventory
			Metric tons			
1976						
FEO countries 1/						
Chile	27,041	105,888	132,929	80,146	3,029	49,347
Iceland	1,802	69,132	70,934	62,162	2,000	6,772
Norway	114,246	240,223	354,469	183,410	7,553	163,506
Peru	40,136	479,419	519,555	110,911	53,748	354,896
South Africa	1,780	143,331	145,111	26,604	71,500	47,007
FEO total	185,005	1,037,993	1,222,998	463,233	137,830	621,528
Other countries						
Canada	5,388	14,573	19,961	12,338	4,742	3,562
Denmark	7,000	124,000	131,000	100,300	na	na
Grand total	197,393	1,176,566	1,373,959	575,871	na	na
1977						
FEO countries 1/						
Chile	36,352	78,754	115,106	69,652	1,750	43,800
Iceland	3,665	106,831	110,496	88,624	2,000	19,871
Norway	139,358	257,882	397,240	174,510	8,241	214,489
Peru	148,033 2/	244,259	392,292	232,819	52,901	106,572
South Africa	1,908	135,000	136,908	4,165	67,000	65,743
FEO total	329,316	822,726	1,152,042	569,770	131,892	450,475
Other countries						
Canada	3,589	14,153	17,742	8,951	5,029	3,933
Denmark	na	130,000	na	92,600	na	na
Grand total	na	966,879	na	671,321	na	na

1/ Excluding Angola, for which figures are not available.
2/ Revised from source to be consistent with other Peruvian figures shown.

Source: Fishmeal Exporters Organization (FEO), Paris; Oil World Weekly, published by ISTA Mielke & Co., Hamburg; Canada, Fisheries and Marine Service, Ottawa; and other sources.

Note: Figures are preliminary, and may include slight discrepancies, owing to revisions, to differences in definition or reporting practices among sources and countries, and to other possible reasons.
na: not available.

Table A 7.--FEO exports of fish meal by country of destination, January-May, 1976-77

Country of destination	Exports		Percentage of total FEO exports		Percentage change from 1976 to 1977
	1976	1977	1976	1977	
	-Thousand metric tons-		-Percent-		
Austria	1.5	0.6	0.3	0.1	- 60.0
Denmark	2.25	3.5	0.5	0.6	+ 55.6
France	22.5	21.1	4.9	3.7	- 6.2
Germany, West	103.9	71.3	22.4	12.5	- 31.4
Greece	3.3	3.2	0.7	0.6	- 3.0
Holland/Belgium	14.55	24.5	3.1	4.3	+ 68.4
Italy	27.5	24.0	5.9	4.2	- 12.7
Portugal	2.1	1.7	0.5	0.3	- 19.0
Spain	1.1	1.2	0.2	0.2	+ 9.1
Switzerland	5.8	3.5	1.3	0.6	- 39.7
UK/Eire	32.6	30.4	7.0	5.3	- 6.7
Scandinavian countries 1/	40.9	41.1	8.8	7.2	+ 0.5
East European countries	100.9	165.3	21.8	29.0	+ 63.8
U.S.S.R.	-	12.1	-	2.1	2/
United States 3/	16.0	9.0	3.5	1.6	- 43.8
Latin American countries 4/	12.7	9.5	2.7	1.7	- 25.2
Hong Kong	.2	.3	5/	0.1	+ 50.0
Iran	7.2	4.4	1.6	0.8	- 38.9
Israel	3.3	2.6	0.7	0.5	- 21.2
Japan	21.4	76.5	4.6	13.4	+ 257.5
Philippines	10.5	6.0	2.3	1.1	- 42.9
Singapore	2.1	-	0.5	-	-
Taiwan	5.8	15.6	1.3	2.7	+ 169.0
Tanzania	-	1.7	-	0.3	2/
Australia	5.0	1.6	1.1	0.3	- 68.0
Other	20.0	39.0	4.3	6.8	+ 95.0
Total	463.1	569.7	100.0	100.0	+ 23.0

1/ Does not include Denmark.
2/ More than 500 percent.
3/ Based on export figures reported by FEO countries.
4/ Includes Cuba.
5/ Less than 0.05 percent.

Note: Recipient countries and categories are those given by FEO.

Source: Fishmeal Exporters Organization (FEO).

Table A 8.--Selected average monthly wholesale prices and price ratio of fish meal to soybean meal, 1974-77

Period	Menhaden 1/	Tuna 2/	Imported 3/ Peruvian	Northwest Europe 4/	Soybean 5/ 44% protein	Soybean 5/ 50% protein	Peruvian fish meal to 50% protein soybean meal
	-Dollars per short ton-						-Price ratio-
1974							
January	6/ 532.50	415.25	7/	549.76	172.00	192.40	8/ 2.77
February	6/ 452.20	357.50	7/	416.40	160.00	175.25	8/ 2.58
March	403.75	276.72	7/	458.13	147.10	160.40	8/ 2.52
April	342.00	251.62	7/	354.71	117.20	130.40	8/ 2.62
May	273.10	257.81	7/	367.41	109.25	120.00	8/ 2.28
June	263.00	222.06	7/	294.83	100.00	110.50	8/ 2.38
July	243.50	190.57	7/	254.01	138.10	147.10	8/ 1.66
August	9/ 314.35	9/ 246.81	7/	279.42	155.90	165.90	8/ 1.89
September	275.50	203.50	7/	253.11	138.10	147.25	8/ 1.87
October	301.25	220.00	7/	287.58	168.20	179.80	8/ 1.68
November	297.50	220.00	297.50	266.72	141.00	154.00	1.93
December	281.00	220.00	278.50	268.53	143.40	155.80	1.79
Average	331.66	265.15	288.00	337.55	140.85	153.30	8/ 2.16
1975							
January	263.12	220.00	6/ 262.50	251.29	129.20	137.90	1.90
February	231.25	20 .96	6/ 231.90	205.02	117.25	126.90	1.83
March	220.50	193.88	220.50	201.40	117.75	126.50	1.74
April	238.75	206.25	240.00	216.82	122.00	131.80	1.82
May	226.87	207.62	223.12	197.77	118.50	129.00	1.73
June	218.75	211.80	216.25	192.32	120.90	130.75	1.65
July	234.50	213.78	226.25	204.12	124.00	134.20	1.69
August	246.25	219.66	255.83	215.00	134.40	144.20	1.78
September	259.00	218.74	259.00	206.84	133.70	144.30	1.79
October	266.25	202.12	265.00	235.87	125.90	135.90	1.95
November	6/ 269.38	198.00	265.00	271.25	119.90	126.80	2.09
December	6/ 266.25	201.50	265.00	273.06	125.10	132.30	2.00
Average	245.07	208.44	244.20	222.56	124.05	133.40	1.83
1976							
January	6/ 268.75	201.00	270.00	274.88	128.25	136.25	1.98
February	6/ 270.00	206.94	270.62	275.79	132.60	139.25	1.94
March	6/ 273.75	210.87	271.25	273.97	127.90	135.60	2.00
April	253.12	210.25	270.62	274.88	127.10	136.40	1.98
May	283.00	217.25	285.00	300.28	152.25	161.75	1.76
June	353.00	273.30	344.00	336.57	187.90	200.30	1.76
July	385.00	299.13	381.25	367.96	193.90	207.88	1.83
August	324.00	275.00	348.00	360.61	173.30	187.10	1.86
September	361.25	280.25	358.75	420.79	179.20	192.50	1.86
October	6/ 361.88	272.94	351.88	404.38	169.60	182.00	1.93
November	6/ 367.00	286.00	366.50	407.78	181.20	193.30	1.90
December	6/ 396.88	295.62	388.75	415.49	197.60	212.60	1.83
Average	324.80	252.37	325.55	341.10	162.57	173.74	1.87
1977							
January	412.50	323.13	404.50	423.43	207.00	224.25	1.80
February	423.75	357.50	416.67	410.05	211.00	230.38	1.81
March	433.33	364.38	6/ 431.25	401.16	226.20	246.60	1.80
April	6/ 483.13	367.82	6/ 479.38	438.86	275.63	299.00	1.60
May	486.00	390.50	482.50	458.81	258.25	283.50	1.70
June	423.75	405.97	435.00	433.09	225.30	247.10	1.76
July	327.50	275.00	358.75	405.29	162.00	182.75	1.96
August	318.75	247.50	325.00	346.77	140.30	160.90	2.02

1/ 60 percent protein, bulk, quoted by brokers at New York City, f.o.b. East Coast and Gulf plants.
2/ 55 percent protein, bulk, Los Angeles. To March 1975 known as tuna and mackerel, now known also as tuna-mix. Prior to July 1975 reported with 60 percent protein content. 1974 to July 1975 prices, therefore, were converted to reflect 55 percent protein content.
3/ 65 percent protein, bulk f.o.b., East Coast ports.
4/ 65 percent protein, any origin, c & f Hamburg, West Germany.
5/ Bulk at Decatur, Ill.
6/ Nominal price.
7/ Supplies exhausted, no quotes.
8/ Ratio of menhaden meal to soybean meal prices, 1974 only.
9/ Asking price.

Source: For Hamburg prices; Oil World, ISTA Mielke & Co., Hamburg, West Germany.
For soybean meal prices: Feed Market News, U.S. Department of Agriculture, Consumer and Marketing Service, Grain Division.

Table A 9.--Production and average price of fish solubles, by month, 1966-75 average and 1975-77

Month	Production				Price 1/			Menhaden meal to menhaden solubles		
	1966-75 average	1975	1976	1977	1975	1976	1977	1975	1976	1977
	Thousand short tons				Dollars per short ton			Price ratio		
January	1.4	3.3	3.1	1.9	86.25	2/ 75.00	2/ 140.0	3.05	3.58	2.95
February	1.4	1.5	1.4	1.5	77.50	2/ 75.00	2/ 144.4	2.98	3.60	2.93
March	2.3	2.8	3.5	5.0	75.00	80.62	2/ 147.5	2.94	3.39	2.94
1st quarter	5.1	7.6	8.0	8.4	79.58	76.87	144.0	2.99	3.52	2.94
April	5.0	7.0	8.4	7.4	73.75	79.38	2/ 166.9	3.32	3.19	2.89
May	11.4	20.3	10.1	11.4	71.25	93.75	2/ 177.0	3.18	3.02	2.75
June	17.4	19.9	17.1	17.7	64.06	118.50	2/ 176.3	3.41	2.98	2.40
2d quarter	33.8	47.2	35.6	36.4	69.69	97.21	173.4	3.27	3.06	2.68
July	18.7	21.2	25.4	18.7	63.50	138.75	2/ 149.4	3.69	2.77	2.19
August	17.5	14.0	22.2		61.88	2/128.00	2/ 128.5	3.98	2.53	2.48
September	11.8	14.2	18.4		66.00	2/127.50		3.92	2.83	
3d quarter	48.0	49.4	66.0		63.79	131.41		3.86	2.71	
October	8.8	14.8	9.0		71.88	2/129.50		3.70	2.79	
November	5.9	4.0	9.8		2/73.12	2/129.00		3.68	2.84	
December	3.7	4.7	4.4		2/74.69	2/135.00		3.56	2.94	
4th quarter	18.4	23.5	23.2		73.23	130.50		3.65	2.88	
Total	105.5	127.8	132.9		3/66.40	3/123.85		4/3.60	4/ 2.80	

1/ Menhaden solubles in tank cars; price quoted by brokers at New York City, f.o.b. East Coast plants.
2/ Nominal price.
3/ Weighted average.
4/ Menhaden meal to menhaden solubles weighted average.

Note: Figures may not add to total because of rounding.
1977 figures subject to revision.

Source: NMFS, Data Management and Statistics Division.

Table A10.--U.S. production of fish oil, by month, 1966-75 average, and 1975-77

Period	Anchovy			Menhaden			Tuna and mackerel			Other			Total			
	1966-75 average	1976	1977	1966-75 average	1976	1977	1966-75 average	1976	1977	1966-75 average	1976	1977	1966-75 average	1975	1976	1977
	Million pounds															
January	0.4	1.0	0.1	-	0.1	0.1	0.3	0.5	0.3	0.3	0.1	0.1	0.9	1.8	1.6	0.5
February	.1	0.2	1/	-	-	-	.2	.3	.3	.2	.2	.2	.5	0.6	0.7	0.5
March	-	0.2	1/	-	-	-	.4	.6	.3	.3	.1	.1	.7	.9	0.9	0.5
1st quarter	.5	1.4	0.1	-	0.1	0.1	.9	1.4	.9	.8	.4	.4	2.2	3.3	3.2	1.5
April	.2	2/	1/	4.2	8.3	4.5	.4	.5	.4	.6	.2	.3	5.3	3.9	9.0	5.1
May	.1	-	1/	21.4	16.0	13.5	.4	.5	2.4	.7	.2	.3	22.7	39.1	18.7	16.2
June	-	-	1/	33.8	31.3	28.1	.4	.4	.3	1.0	.5	.8	35.3	39.5	32.2	29.2
2d quarter	.3	2/	-	59.4	57.6	46.1	1.3	1.4	3.1	2.3	1.0	1.3	63.3	82.5	60.0	50.5
July	-	-	-	39.0	39.4	22.0	.5	.5	.4	1.9	.6	1.2	41.4	56.2	39.5	23.6
August	.1	-		35.9	41.9		.6	.6		2.0	1.3		38.5	36.5	43.8	
September	.5	.5		23.1	36.8		.6	.5		2.0	1.5		26.2	36.7	39.4	
3d quarter	.6	.5		98.0	117.2		1.6	1.6		5.9	3.4		106.0	129.4	122.6	
October	1.2	.9		11.5	10.0		.6	.6		1.3	1.6		14.6	20.7	13.0	
November	1.4	1.5		6.2	1.6		.5	.5		.5	.1		8.6	5.3	3.7	
December	1.0	1.1		2.3	-		.4	.8		.4	.1		4.1	4.6	2.0	
4th quarter	3.7	3.5		20.1	11.6		1.5	1.9		2.2	1.8		27.4	30.5	18.7	
Total	5.0	5.3		177.5	186.4		5.2	6.3		11.2	6.5		198.9	245.7	204.6	

1/ Included with "other".
2/ Less than 50,000 pounds.

Note: Figures may not add to total because of rounding.
1977 figures subject to revision.

Source: NMFS, Data Management and Statistics Division.

Table A11.-- U.S. exports, domestic industrial use, and total disappearance of fish oil, by month, 1966-75 average, and 1975-77

Time period	Exports 1/				Domestic disappearance 2/				Total disappearance			
	1966-75 average	1975	1976	1977	1966-75 average	1975	1976	1977	1966-75 average	1975	1976	1977
	Million pounds											
January	10.4	13.0	9.0	0.7	2.4	2.7	2.9	2.2	12.8	15.7	11.8	2.9
February	4.7	0.1	1.1	1.0	2.6	2.1	3.1	2.7	7.3	2.2	4.2	3.7
March	8.0	.1	3.2	3.7	2.5	2.3	3.3	3.3	10.5	2.5	6.5	7.0
1st quarter	23.1	13.3	13.3	5.4	7.5	7.1	9.3	8.1	30.6	20.4	22.6	13.6
April	3.8	4.7	0.1	3/	2.8	2.5	3.7	3.2	6.6	7.2	3.8	3.2
May	5.4	3/	5.1	1.5	2.6	2.4	3.3	3.3	8.0	2.4	8.5	4.8
June	14.0	33.8	12.4	15.0	2.9	2.9	3.5	2.6	16.6	36.7	15.9	17.7
2d quarter	23.0	38.5	17.	16.6	8.3	7.7	10.5	9.1	31.5	46.3	28.2	25.6
July	23.4	29.1	33.1	16.1	2.8	3.2	2.3	2.8	26.2	32.3	35.4	18.9
August	28.0	33.9	35.0		3.0	4.2	3.4		31.0	38.1	38.5	
September	17.1	4.8	42.1		3.1	4.0	3.9		20.2	8.8	46.1	
3d quarter	68.5	67.8	110.3		8.9	11.4	9.7		77.4	79.2	119.9	
[illegible]er	19.3	14.2	16.5		2.6	3.9	3.0		21.9	18.1	19.5	
[illegible]er	12.2	18.9	14.6		2.6	3.7	3.1		14.8	22.6	17.8	
[illegible]er	17.3	39.2	6.8		2.4	3.0	2.8		19.7	42.2	9.7	
[illegible]rter	48.8	72.3	37.9		7.6	10.6	9.0		56.4	82.9	46.9	
	163.7	191.9	179.2		32.3	36.8	38.4		196.0	228.7	217.7	

[illegible]ding whale oil.
[illegible]udes marine mammal oil other than sperm oil and some hydrogenated fat (vegetable and [illegible]al) and other fats and oils in process.
3/ Less than 50,000 pounds.

Source: Bureau of the Census, Current Industrial Reports, Fats and Oils, Production Consumption and Stocks, U.S. Department of Commerce, Bureau of the Census.

Note: Figures may not add to total because of rounding.

Table A12.--Selected average monthly prices of fish and soybean oils, and price ratio of menhaden oil to soybean oil, 1974-77

Time period	Anchovy 1/	Menhaden 2/	Tuna 3/	Northwest Europe 4/	Soybean 5/	Menhaden oil to soybean oil
	-Cents per pound-					-Price ratio-
1974						
January	15.6	21.0	7.1	23.1	28.6	.73
February	15.5	21.2	9.0	23.4	36.4	.58
March	6/	23.2	12.0	25.3	30.2	.77
April	6/	25.7	6/	25.6	28.2	.91
May	6/	6/	11.0	26.6	29.4	-
June	6/	25.0	11.0	25.3	31.6	.71
July	6/	25.4	12.3	24.5	40.5	.63
August	6/	26.0	12.8	27.0	43.3	.60
September	6/	25.0	13.0	25.4	40.7	.62
October	6/	24.9	14.0	26.8	42.8	.58
November	20.8	26.0	15.3	26.6	40.4	.64
December	22.7	25.0	15.4	24.2	28.0	.66
Average	18.6	24.4	12.1	25.3	35.8	.68
1975						
January	20.0	25.0	15.5	23.1	33.6	.74
February	18.9	7/ 20.0	15.5	19.2	29.4	.68
March	15.2	6/	10.0	16.6	29.1	-
April	15.0	6/	7.2	14.9	28.2	-
May	15.0	13.5	7.4	12.8	23.6	.57
June	15.0	13.0	7.5	13.0	23.3	.56
July	6/	13.5	7.5	14.7	27.5	.49
August	6/	14.6	7.5	14.6	28.4	.51
September	14.5	15.0	7.6	13.9	24.3	.62
October	14.1	15.2	7.7	14.1	21.4	.71
November	13.1	15.2	7.1	15.1	18.9	.80
December	11.6	15.5	6.8	15.1	16.8	.92
Average	15.2	16.0	8.9	15.6	25.4	.66
1976						
January	12.5	6/	7.6	14.6	16.2	-
February	12.5	6/	8.0	14.7	16.3	-
March	6/	15.2	6/	15.2	16.6	.92
April	6/	15.2	8.0	14.8	16.3	.93
May	6/	15.4	6/	15.3	15.8	.97
June	6/	15.4	6/	16.6	17.3	.89
July	6/	18.0	6/	18.5	20.9	.86
August	14.0	16.6	6/	17.2	20.4	.81
September	14.0	18.0	6/	18.6	22.5	.80
October	14.0	18.7	6/	19.0	20.7	.90
November	14.0	18.6	9.2	19.2	21.8	.85
December	14.0	18.5	9.5	19.1	21.0	.88
Average	13.6	17.0	8.5	16.9	18.8	.90
1977						
January	14.0	18.6	9.3	19.4	20.9	.89
February	14.0	19.2	9.5	20.0	22.4	.86
March	14.0	21.3	9.4	22.5	26.5	.80
April	14.0	23.9	9.5	25.3	29.6	.81
May	14.0	25.6	9.5	26.2	31.3	.82
June	6/	25.6	12.0	24.4	28.3	.90
July	6/	21.4	12.4	21.1	23.8	.90
August	6/	20.0	12.5	19.7	21.1	.95

1/ Crude oil, f.o.b. plants, quoted at Los Angeles.
2/ Crude oil in tank cars; f.o.b. East Coast plants, quoted at New York City.
3/ Crude oil, f.o.b. plants, quoted at Los Angeles.
4/ Crude oil, any origin, at Hamburg.
5/ Crude, tank cars, f.o.b, at Decatur, Ill.
6/ Supplies exhausted, no quotes.
7/ Nominal price.

Source: For NW. Europe prices; Oil World ISTA Mielke & Co., Hamburg, West Germany.
For soybean oil prices; Fats and Oil Situation, U.S. Department of Agriculture.

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Weekly Summary: Halibut landings by port; halibut exvessel prices; Seattle otter trawl landings and prices; landings at Kodiak; troll salmon landings and prices at Washington, Oregon, and Alaska ports; salmon and otter trawl landings for northern California; albacore landings and prices for Washington and Oregon.

Terminal Island (Yellow sheet)

Full service report: Tuna landings and cannery receipts; market fish landings by port and species; anchovy and mackerel landings; U.S. and regional fish meal, oil, and solubles market; canned fish prices; California canned tuna and bonito pack; U.S. cold-storage holdings; California imports of fishery products and U.S. shrimp imports by count size.

Weekly summary: Market fish landings by port and area; anchovy, mackerel, and otter trawl landings; tuna receipts and activities at California canneries.

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Gloucester, Mass. 617-283-1101
Landings and exvessel prices at Boston and Gloucester; sea scallop landings and prices at New Bedford, Mass.

New Bedford, Mass. 617-997-6565
Landings and exvessel prices at New Bedford.

Hampton, Va. 804-723-0303
Landings and exvessel prices for New Bedford and Boston, Mass., and the Fulton Market in New York, announced from 10:30 a.m. to 3:00 p.m., Monday through Friday. Wholesale prices at Baltimore, Md., and New York Fulton Market announced 3:30 p.m. until 10:00 a.m. the following day, Monday through Thursday. Friday only, weekly summary of landings in the Hampton Roads area.

New York, N.Y. 212-620-3577
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